SMALL SITE PROGRESS

"This year, we made equally important progress and achieved EM priorities at our collection of smaller sites across the DOE complex. By continuing to advance cleanup at these locations, we are achieving significant risk reduction for local communities and moving these sites closer to completion."

- Nicole Nelson-Jean, Associate Principal Deputy Assistant Secretary for Field Operations, EM-Headquarters

HIGHLIGHTS

- **Disposed a cumulative 13 million tons of the estimated 16 million tons of uranium mill tailings at the Moab Site—an EM 2022 priority.**
- Continued characterization and hazard reduction activities to prepare for demolition and closure of two legacy facilities at the Nevada National Security Site.
- Completed disposal of building demolition debris at the Energy Technology Engineering Center site in California.
- Completed the Building 280 Reactor Removal Project and completed waste disposal from the demolition of Building 175 at Lawrence Livermore National Laboratory.

The Moab site tailings "pile." Rows of tailings are dried out before being loaded into specialty train containers, which are carried by haul trucks to the train and then loaded and transported to the disposal cell.

80 PERCENT DONE AT THE MOAB SITE

At the Moab Site in Utah, workers safely removed and disposed of approximately one million tons of former uranium mill tailings material, helping to continue to protect the Colorado River. This brings the total amount disposed of to date to 13 million tons out of an estimated 16 million tons of material at the site. In addition, workers removed 979,000 pounds of ammonia and 5,500 pounds of uranium from project groundwater extraction wells, diverting them from reaching the Colorado River.

Characterization is underway in preparation for demolition and closure of the TCC facility.

PREPARING LAST MAJOR FACILITIES AT THE NEVADA NATIONAL SECURITY SITE FOR DEMOLITION

In 2022, the EM Nevada Program and its environmental program services contractor continued to prepare for the upcoming demolition and closure of two large legacy nuclear facilities on the Nevada National Security Site—the Engine Maintenance, Assembly, and Disassembly (EMAD) and Test Cell C (TCC) complexes. Both EMAD and TCC were part of the Nuclear Rocket Development Station, which supported the development and testing of nuclear propulsion rocket engines from 1957 until 1973.

Constructed in 1965, EMAD was once the largest hot cell in the world. The 80-foot-tall building contains 100,000 square feet of floor space and is anticipated to generate 120,000 cubic yards of waste, or about 6,500 truckloads. Test Cell C, built in 1961, was used to ground test nuclear reactors and engines for rockets. Demolition and closure of the facility are anticipated to generate 18,500 cubic yards of waste, or about 1,200 truckloads.

The work at EMAD and TCC represents the last major demolition and closure efforts currently identified in EM Nevada's environmental remediation mission. The characterization and hazard reduction performed in 2022 will help ensure future demolition and closure activities at EMAD and TCC are conducted safely, securely, and successfully.

EM's federal project director at ETEC (right) shakes hands with a California Department of Toxic Substances Control Engineering Geologist as the last trucks of demolition waste safely left the site.

WRAPPING UP DEBRIS DISPOSAL AT THE ENERGY TECHNOLOGY ENGINEERING CENTER

Significant cleanup progress continued in 2022 as the Energy Technology Engineering Center (ETEC) marked another milestone when trucks carried off the last of demolition waste generated from the demolition of the final DOE-owned buildings on the site in October 2021.

The waste from demolition at the former nuclear energy and liquid metals research site was shipped to a licensed facility for disposal out of the state of California.

TACKLING EXCESS FACILITIES AT LAWRENCE LIVERMORE NATIONAL LABORATORY

EM partnered with Lawrence Livermore National Laboratory (LLNL) and the U.S. Army Corps of Engineers (USACE) to complete the removal of a former reactor, and removal of debris waste, helping to make room for new facilities on the lab's one-square-mile footprint.

Building 175, which crews demolished to slab in 2021, played a part in LLNL's Uranium Atomic Vapor Laser Isotope Separation program. This year, workers completed the disposal of the waste generated through the building's demolition.

USACE, under an interagency agreement with EM, completed the removal and demolition of the Livermore Pool Type Reactor in December 2021. The reactor, which was housed in Building 280, was a neutron-producing machine used for fundamental research and to measure and calibrate instruments.

Before and after views of the demolition of Building 175 at LLNL.